

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Use as many sheets as necessary)

Page 1 of 5

Application Number

10/596956

Filing Date

December 17, 2004

First Named Inventor

CARTER, CHAD J.

Confirmation Number

2943

Attorney Case Number

59468US005

U.S. Patent Documents

| Exam. Init.* | Cite No. | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|-----------------|-------------|----------------------------------|--------------------------------|--|---|
| | | Doc. Number-(Kind Code if Known) | | | |
| | A1 | US3970518 | 7.2.1976 | Giaever | |
| | A2 | US4001197 | 1.4.1977 | Mitchell et al. | |
| | A3 | US4204041 | 5.20.1980 | Bailey et al. | |
| | A4 | US4233029 | 11.11.1980 | Columbus et al. | |
| | A5 | US4229537 | 10.21.1980 | Hodgins et al. | |
| | A6 | US4986914 | 1.22.1991 | Franks | |
| | A7 | US5012668 | 5.7.1991 | Haworth | |
| | A8 | US5076094 | 12.31.1991 | Frye et al. | |
| | A9 | US5117146 | 5.26.1992 | Martin et al. | |
| | A10 | US5120594 | 6.9.1992 | Mrozinski | |
| | A11 | US5151110 | 9.29.1992 | Bein et al. | |
| | A12 | US5235235 | 8.10.1993 | Martin et al. | |
| | A13 | US5238623 | 8.24.1993 | Mrozinski | |
| | A14 | US5246846 | 9.21.1993 | Pittner et al. | |
| | A15 | US5362421 | 11.8.1994 | Kropp et al. | |
| | A16 | US5531878 | 7.2.1996 | Vadgama et al. | |
| | A17 | US5552272 | 9.3.1996 | Bogart | |
| | A18 | US5639671 | 6.17.1997 | Bogart et al. | |
| | A19 | US5674742 | 10.7.1997 | Northrup et al. | |
| | A20 | US5685939 | 11.11.1997 | Wolk et al. | |
| | A21 | US5763283 | 6.9.1998 | Cernosek et al. | |
| | A22 | US5759625 | 6.2.1998 | Laubacher et al. | |
| | A23 | US5814525 | 9.29.1998 | Renschler et al. | |
| | A24 | US5836203 | 11.17.1998 | Martin et al. | |
| | A25 | US5849208 | 12.15.1998 | Hayes et al. | |
| | A26 | US5866195 | 2.2.1999 | Lemelson | |
| | A27 | US5880552 | 3.9.1999 | McGill et al. | |
| | A28 | US5888594 | 3.30.1999 | David et al. | |

*Examiner:

Date Considered:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Information Disclosure Statement)

| | | |
|---|-----------------------------|-------------------|
| Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 2 of 5 | Application Number | 10/596956 |
| | Filing Date | December 17, 2004 |
| | First Named Inventor | CARTER, CHAD J. |
| | Confirmation Number | 2943 |
| | Attorney Case Number | 59468US005 |

| U.S. Patent Documents | | | | | |
|-----------------------|-------------|----------------------------------|--------------------------------|--|---|
| Exam. Init.* | Cite No. | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Doc. Number-(Kind Code if Known) | | | |
| | A29 | US5948166 | 9.7.1999 | David et al. | |
| | A30 | US6062091 | 5.16.2000 | Baumoe | |
| | A31 | US6146510 | 11.14.2000 | Leader et al. | |
| | A32 | US6156270 | 12.5.2000 | Buechler | |
| | A33 | US6232139 B1 | 5.15.2001 | Casalnuovo et al. | |
| | A34 | US6287894B1 | 9.11.2001 | Sawin | |
| | A35 | US6334980B1 | 1.1.2002 | Hayes et al. | |
| | A36 | US6352758B1 | 3.5.2002 | Huang et al. | |
| | A37 | US6369893B1 | 4.9.2002 | Christel et al. | |
| | A38 | US6372954B1 | 4.16.2002 | Johnson et al. | |
| | A39 | US6556105B1 | 4.29.2003 | Nguyen et al. | |
| | A40 | US6559474B1 | 5.6.2003 | Craighead et al. | |
| | A41 | US6573338 | 6.3.2003 | Halverson et al. | |
| | A42 | US6656428B1 | 12.2.2003 | Clark et al. | |
| | A43 | US6696304B1 | 2.24.2004 | Davies | |
| | A44 | US7169933 B2 | 1.30.2007 | Benson et al. | |
| | A45 | US7175876 | 2.13.2007 | Free et al. | |
| | A46 | US7179923 B2 | 2.20.2007 | Benson et al. | |
| | A47 | US2001/0028953A1 | 10.11.2001 | Bluem et al. | |
| | A48 | US2002/0192841A1 | 12.19.2002 | Kojima | |
| | A49 | US2003/0170881A1 | 9.11.2003 | Davis et al. | |
| | A50 | US2003/0203101A1 | 10.30.2003 | Haubrich et al. | |
| | A51 | US2003/0218130A1 | 11.27.2003 | Boschetti et al. | |
| | A52 | US2004/0265492A1 | 12.30.2004 | Free et al. | |
| | A53 | US2005/0106709A1 | 5.19.2005 | Benson et al. | |
| | A54 | US2005/0107615A1 | 5.19.2005 | Benson et al. | |
| | A55 | US2005/0112672A1 | 5.26.2005 | Benson et al. | |
| | A56 | US2005/0142296A1 | 6.30.2005 | Lakshmi | |

| | |
|--|-------------------------|
| *Examiner: | Date Considered: |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |

| | | |
|---|-----------------------------|-------------------|
| Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 3 of 5 | Application Number | 10/596956 |
| | Filing Date | December 17, 2004 |
| | First Named Inventor | CARTER, CHAD J. |
| | Confirmation Number | 2943 |
| | Attorney Case Number | 59468US005 |

| U.S. Patent Documents | | | | | |
|-----------------------|----------|----------------------------------|--------------------------------|--|---|
| Exam. Init.* | Cite No. | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Doc. Number-(Kind Code if Known) | | | |
| | A57 | US2005/0153370A1 | 7.14.2005 | Lakshmi et al. | |
| | A58 | US2005/0227076A1 | 10.13.2005 | Benson et al. | |
| | A59 | US2006/0019330A1 | 1.26.2006 | Lakshmi et al. | |
| | A60 | US2006/0135718A1 | 6.22.2006 | Benson et al. | |
| | A61 | US2006/0135783A1 | 6.22.2006 | Benson et al. | |
| | A62 | US2007/0065490A1 | 3.22.2007 | Schaberg et al. | |
| | A63 | US2007/0068256A1 | 3.29.2007 | Xu et al. | |
| | A64 | US2007/0190662A1 | 8.16.2007 | Baetzold et al. | |
| | A65 | US- | | | |

| Foreign Patent Documents | | | | | | |
|--------------------------|----------|-------------------------|----------------------------|--------------------------------|--|---|
| Exam. Init.* | Cite No. | Foreign Patent Document | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Ctry. Code | Number-KindCode (If known) | | | |
| | B1 | CA | 2369720A1 | 7.30.2003 | | |
| | B2 | FR | 2612297A | 9.16.1988 | | English Abstract |
| | B3 | GB | 1130593A | 10.16.1968 | | |
| | B4 | EP | 0840369A | 5.6.1998 | | |
| | B5 | EP | 0 016 552 B1, B2 | 10.1.1980 | | |
| | B6 | EP | 0 016 552 A1 | 10.1.1980 | | |
| | B7 | EP | 0657737A2 | 6.14.1995 | | |
| | B8 | JP | 09 162693A | 6.20.1997 | | English Abstract |
| | B9 | JP | 5043600 | 2.23.1993 | | English Abstract |
| | B10 | WO | 00/16903 | 3.30.2000 | | |
| | B11 | WO | 01/23892A1 | 4.5.2001 | | |
| | B12 | WO | 02/095940A1 | 11.28.2002 | | |
| | B13 | WO | 02/094890A1 | 11.28.2002 | | |
| | B14 | WO | 05/075973A2 | 8.18.2005 | | |
| | B15 | WO | 05/066622A1 | 7.21.2005 | | |

| | |
|--|-------------------------|
| *Examiner: | Date Considered: |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |

| | | |
|---|-----------------------------|-------------------|
| Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 4 of 5 | Application Number | 10/596956 |
| | Filing Date | December 17, 2004 |
| | First Named Inventor | CARTER, CHAD J. |
| | Confirmation Number | 2943 |
| | Attorney Case Number | 59468US005 |

| Foreign Patent Documents | | | | | | |
|--------------------------|----------|-------------------------|----------------------------|--------------------------------|--|---|
| Exam. Init.* | Cite No. | Foreign Patent Document | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Ctry. Code | Number-KindCode (if known) | | | |
| | B16 | WO | 05/066621A1 | 7.21.2005 | | |
| | B17 | WO | 05/066092 | 7.21.2005 | | |
| | B18 | WO | 05/064349A2 | 7.14.2005 | | |
| | B19 | WO | 03/098206A1 | 11.27.2003 | | |
| | B20 | WO | 02/090565 A2 | 11.14.2002 | | |
| | B21 | WO | 01/66820 A1 | 9.13.2001 | | |
| | B22 | WO | 00/70040 A1 | 11.23.2000 | | |
| | B23 | WO | 02/088296A1 | 11.7.2002 | | |
| | B24 | WO | 99/09923 A1 | 3.4.1999 | | |
| | B25 | | | | | |
| | B26 | | | | | |
| | B27 | | | | | |

| OTHER DOCUMENTS | | | |
|-----------------|----------|--|-------------------------------|
| Exam. Init.* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published | Translation (Check if yes) |
| | C1 | Rapp, M., et al. NEW MINIATURIZED SAW-SENSOR ARRAY FOR ORGANIC GAS DETECTION DRIVEN BY MULTIPLEXED OSCILLATORS, Sensors and Actuators B, Elsevier Sequoia S.A., Lausanne, Ch, Vol. 65, No. 1-3, June 30, 2000, pp 169-172, ISSN: 0925-4005 (whole document) | |
| | C2 | Kim et al., "Impedance characterization of a piezoelectric immunosensor part II: <i>Salmonella typhirium</i> detection using magnetic enhancement," Biosensors and Bioelectronics, 18: 91-99 (2003). | |
| | C3 | Du, J., et al. LOVE WAVE ACOUSTIC IMMUNOSENSOR OPERATING IN LIQUID, Sensors and Actuators A, Elsevier Sequoia S.A., Lausanne, Ch, Vol. 61, No. 1-3, June 1997, pp 279-286, ISSN: 0924-4247 (whole document) | |
| | C4 | Du et al., A STUDY OF LOVE-WAVE ACOUSTIC SENSORS, Sensors and Actuators A, 56 (1996) pp. 211-219 | |
| | C5 | David et al., PLASMA DEPOSITION AND ETCHING OF DIAMOND-LIKE CARBON FILMS, AIChE Journal, 37(3): 367-376 (March 1991). | |
| | C6 | Branch et al., "Low-level detection of a Bacillus anthracis simulant using Love-wave biosensors on 36°YXLiTaO ₃ ," Biosensors and Bioelectronics (accepted 22 August 2003). | |
| | C7 | Grate, J.W. et al., ACOUSTIC WAVE SENSORS, Sensor Update, Vol. 2, 1996, p 38-83, ISBN: 3-527-29432-5, pg 45, paragraph 2.2.7; figures 2.1.2.4; tables 2.1.2.2 | |

| | |
|--|-------------------------|
| *Examiner: | Date Considered: |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |

| | | |
|---|-----------------------------|-------------------|
| Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 5 of 5 | Application Number | 10/596956 |
| | Filing Date | December 17, 2004 |
| | First Named Inventor | CARTER, CHAD J. |
| | Confirmation Number | 2943 |
| | Attorney Case Number | 59468US005 |

| OTHER DOCUMENTS | | | |
|-----------------|----------|--|----------------------------|
| Exam. Init.* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published | Translation (Check if yes) |
| | C8 | Tamarin et al., STUDY OF ACOUSTIC LOVE WAVE DEVICES FOR REAL TIME BACTERIOPHAGE DETECTION, Sensors and Actuators B, 91 (2003) pp. 275-284 | |
| | C9 | Shah, R.R., et al., "Using Liquid Crystals To Image Reactants and Products of Acid-Base Reactions on Surfaces with Micrometer Resolution", <i>J. Am. Chem. Soc.</i> , 1999, 121, 11300-11310 | |
| | C10 | Shah, R.R., et al., "Principles for Measurement of Chemical Exposure Based on Recognition-Driven Anchoring Transitions in Liquid Crystals", <i>Science</i> , 2001, 293, 1296. | |
| | C11 | Wagner, P., et al., "Covalent Immobilization of Native Biomolecules onto Au(111) via N-Hydroxysuccinimide Ester Functionalized Self-Assembled Monolayers for Scanning Probe Microscopy", <i>Biophysical. Journal</i> , 1996, Vol. 70, 2052-2066 | |
| | C12 | Wang, J., et al. "Ultrathin Porous Carbon Films as Amperometric Transducers for Biocatalytic Sensors", <i>Anal. Chem.</i> 1994, 66, 1988-1992 | |
| | C13 | | |
| | C14 | | |
| | C15 | | |

| | |
|--|-------------------------|
| *Examiner: | Date Considered: |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |